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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,106	07/19/2001	Philip John Turner	1448	8464

4518 7590 12/18/2003

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EXAMINER

SUN, XIUQIN

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/786,106

Applicant(s)

TURNER, PHILIP JOHN

Examiner

Xiuqin Sun

Art Unit

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AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 16 and 21-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9. 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-8, 11-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpa (U.S. Pat. No. 4658921) in view of Douglas et al. (U.S. Pat. No. 5606516).

Karpa teaches a system and method (col. 1, line 59 to col. 3, line 2; col. 3, lines 22-58; col. 4, lines 17-23 and Figs. 1-3) for calibrating a plurality of weighing installations of the kind having a working configuration of a plurality of working load cells (2) each with a fixed side and a load-bearing side, supports for the fixed sides of the load cells (3), and a load operatively mounted on and distributed between the load-bearing sides of the load cells (1), comprising portable apparatus moveable between installations to be calibrated (8, 9, 10, 11, 12, 13, 14 and 15), and fixed apparatus at each installation to be calibrated (4, 16, 17 and 18), wherein the portable apparatus includes a reference load cell (11) and a fluid ram (12 and 13), the fixed apparatus at each installation includes a plurality of anchorage means (4, 16, 17 and 18) fast with each working load cell support (3), and the reference cell and the ram are

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removably connectable between the anchorage means and the load-bearing side of each of the working load cells (8, 9, 10 and 14) to apply calibrating loads to each of the working load cells in the working configurations of the installations (Figs. 1-3; and col. 2, lines 40-52). Karpa further teaches that: said support for the fixed side of the load cell comprises a load plate (col. 3, lines 22-30), and the anchorage means are incorporated into each load plate (col. 3, lines 22-30); said support for the fixed side of the load cell comprises a load plate fastened to a solid base, and the anchorage means are provided on the solid base (col. 3, lines 22-30); said anchorage means comprise two pairs of parallel upstanding webs on either side of the load cell, the webs having slots to provide an anchorage (Figs. 1-2; and col. 3, lines 26-30); said portable apparatus includes a cradle removably connectable to the anchorage means, holding the fluid ram in position to apply a calibrating load to the working load cell, and said cradle includes tie bars for engagement with the anchorage means joined by a cross beam to which the ram is attached (Figs 1-2; and col. 3, lines 26-35); said the cradle includes position adjustment means to permit the reference cell to be properly positioned in relation to the working cell (col. 3, lines 35-37); said system including a self levelling washer located between the portable apparatus and the load-bearing side of the working load cell (col. 3, lines 30-35); said reference load cell is a pancake load cell in which a central core is supported by shear webs from an outer rim (Fig. 1 and col. 3, lines 31-33).

Karpa does not mention: said portable apparatus includes as many reference load cells and fluid rams as are necessary to apply calibrating loads simultaneously to each of the plurality of working load cells in its working configuration of any of said

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installations; a source of fluid under pressure, step and means for supplying fluid under pressure from the source simultaneously to the fluid rams associated with each one of the plurality of reference load cells in the working configuration of the installation, step and means for recording each calibrating load applied to the working load cells as measured by the reference load cells, and step and means for recording the corresponding output of the working load cells to provide a calibration record; and said portable apparatus includes control means for varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell; said system operable to calibrate each load cell selectively as well as simultaneously; said portable apparatus includes control means for varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell; said method comprising the step of supplying fluid from the source to the rams associated with the reference load cells selectively as well as simultaneously when applying the calibrating loads to each working load cell at an installation.

Douglas et al. teach an apparatus and method for calibrating a plurality of weighing installations in a hydraulic weighing system, comprising: as many reference load cells and fluid rams as are necessary to apply calibrating loads simultaneously to each of the plurality of working load cells in its working configuration of any of said installations (Figs. 1 and 11; col. 4, lines 30-42; col. 7, lines 33-44; col. 8, lines 4-16; col.

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9, lines 35-43, lines 54-67; col. 10, lines 1-9 and lines 49-50); a source of fluid under pressure, and step and means for supplying fluid under pressure from the source selective as well as simultaneously to the fluid rams associated with each one of the plurality of reference load cells in the working configuration of the installation (Figs. 1 and 11; col. 4, lines 30-42; col. 6, lines 15-25; col. 7, lines 33-44; col. 8, lines 4-16, lines 28-34; col. 9, lines 35-43, lines 54-67; col. 10, lines 1-9 and lines 49-50); step and means for recording each calibrating load applied thereto as measured by the reference load cells, and step and means for recording the corresponding output of the working load cells to provide a calibration record (col. 10, lines 1-65); step and means for varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell (col. 9, lines 54-67); said system operable to calibrate each load cell selectively as well as simultaneously (col. 6, lines 15-25; col. 7, lines 33-44 and col. 8, lines 28-34); and said apparatus and method includes step and means for varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell (col. 9, lines 54-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teachings of Douglas et al. in the Karpa invention in order to generate an accurate load reference signal for calibrating each of a plurality of working load cells simultaneously without moving the calibration chamber from location

to location over the platform, so that the weighing installation can be calibrated much more rapidly, simply and reliably (Douglas et al., col. 3, lines 9-45 and col. 10, lines 49-65).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karpa in view of Douglas et al., as applied to claim 1 above, and further in view of Maresca, Jr. et al. (U.S. Pat. No. 5950487).

Karpa and Douglas et al. teach a system and method that includes the subject matter discussed above. Karpa and Douglas et al. do not mention explicitly: said anchorage means comprise flat areas of ferromagnetic material engageable by electromagnets carried by the portable apparatus.

Maresca et al. teach a anchorage means for anchoring a scale to a baseplate, wherein said anchorage means comprise flat areas of ferromagnetic material engageable by electromagnets carried by the said scale (Figs. 12; and col. 15, lines 11-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Maresca anchorage means in the combination of Karpa and Douglas et al. in order to provide an alternative technique of anchorage (Maresca et al., col. 15, lines 20-25).

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpa in view of Douglas et al.;

Karpa and Douglas et al. teach a system and method that includes the subject matter discussed above. Karpa and Douglas et al. do not mention explicitly: said

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calibrating load is transmitted to the working load cell through a part of a weigh vessel; and said calibrating load is transmitted to the working load cell through a vessel support bracket.

Karpa however teaches that said calibrating load is transmitted to the working load cell through a part of a scale platform (Fig2. 1-2, col. 2, lines 44-53 and col. 3, lines 30-37).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute a vessel support bracket for Karpa's weigh platform, since it is well known in the art the equivalence of Karpa's scale platform and a vessel support bracket for their use in supporting whatever is to be weighed by a weighing installation, and the selection of any of these known equivalents to provide a weighing installation would be within the level of ordinary skill in the art.

#### ***Allowable Subject Matter***

5. Claims 16, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Reasons for Allowance***

6. The primary reason for the allowance of claims 16, 21 and 22 is the inclusion of the limitation of the switch means for diverting fluid to the ram or rams associated with each of the plurality of reference load cells in turn, and for selecting the outputs of the



corresponding load cells for recording. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-15 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-15 and 17-20 are rejected as new art reference (U.S. Pat. No. 5606516

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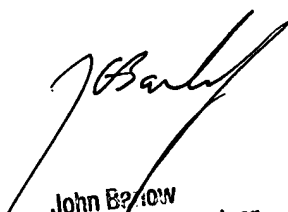
to Douglas et al.) has been found to teach an apparatus and method of weighing installation calibration comprising a plurality of reference load cells and fluid rams, a source of fluid under pressure, and means for supplying fluid under pressure from the common source to the fluid rams associated with each one of the reference load cells. For more detailed response, please refer to section 2 set forth above in this Office Action.

**Contact Information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

XS  
XS  
December 10, 2003

  
John Barlow  
Supervisory Patent Examiner  
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